



TEconomy/BIO

The Value of Bioscience Innovation in Growing Jobs and Improving Quality of Life 2016

Florida

Florida is home to a large and diverse bioscience industry with nearly 83,000 jobs that span 5,895 business establishments. The state has a specialized employment concentration in the bioscience-related distribution subsector and is highly concentrated in agricultural feedstock and chemicals. Florida’s bioscience industry has grown its employment base by 4.9 percent since 2012 with four of the five major subsectors contributing to job growth including double-digit employment gains in both drugs and pharmaceuticals and in medical devices. Florida’s research universities conducted more than \$1.2 billion in bioscience-related R&D in 2014. The state also stands out in its level of bioscience patenting with 4,904 patents issued to Florida inventors since 2012, placing it among the top tier of states. Key patent segments in Florida include medical and surgical devices; drugs and pharmaceuticals; and the agricultural biosciences.

Bioscience Performance Metrics

Summary of State Performance in Selected Bioscience-related Metrics

Metric	Florida	United States	Quintile
Bioscience Industry, 2014			
Bioscience Industry Employment	82,801	1,655,680	I
Bioscience Industry Location Quotient	0.86	n/a	III
Bioscience Industry Establishments	5,895	77,283	I
Academic Bioscience R&D Expenditures, FY 2014			
Bioscience R&D (\$ thousands)	\$1,213,623	\$38,873,926	II
Bioscience Share of Total R&D	60%	61%	III
Bioscience R&D Per Capita	\$61	\$122	V
NIH Funding, FY 2015			
Funding (\$ thousands)	\$521,809	\$22,869,746	II
Funding Per Capita	\$26	\$71	IV
Bioscience Venture Capital Investments, 2012–15 (\$ millions)	\$840.5	\$48,742.10	II
Bioscience and Related Patents, 2012–15	4,904	101,026	I

State ranking figures for bioscience performance metrics are calculated as quintiles, where:

top quintile – I II III IV V – bottom quintile

For source notes, see end of State Profile.



Florida

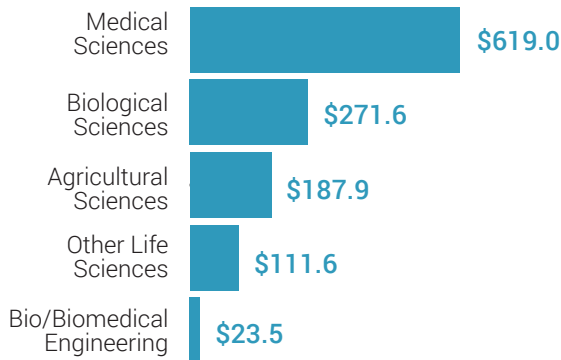
Industry Subsector	Florida		United States	
	2014	2012–2014 Change	2014	2012–2014 Change
Agricultural Feedstock and Chemicals				
Establishments	144	14.9%	1,811	2.2%
Employment	4,886	-3.9%	77,545	1.5%
Location Quotient	1.09		n/a	
Direct-Effect Employment Multiplier	19.2		18.4	
Total Employment Impact	93,666		1,432,125	
Average Annual Wage	\$78,065	10.9%	\$80,640	6.3%
Bioscience-Related Distribution				
Establishments	3,162	2.3%	37,833	2.8%
Employment	35,978	1.1%	452,325	2.3%
Location Quotient	1.37		n/a	
Direct-Effect Employment Multiplier	3.3		3.0	
Total Employment Impact	119,756		1,358,820	
Average Annual Wage	\$91,137	7.8%	\$90,458	6.2%
Drugs and Pharmaceuticals				
Establishments	237	16.2%	3,301	8.0%
Employment	4,821	11.8%	293,353	3.2%
Location Quotient	0.28		n/a	
Direct-Effect Employment Multiplier	13.3		11.0	
Total Employment Impact	63,938		3,242,627	
Average Annual Wage	\$69,530	10.4%	\$117,524	10.3%
Medical Devices and Equipment				
Establishments	657	18.0%	7,636	5.5%
Employment	17,074	10.3%	349,045	-0.1%
Location Quotient	0.84		n/a	
Direct-Effect Employment Multiplier	4.9		4.6	
Total Employment Impact	83,484		1,596,802	
Average Annual Wage	\$63,731	6.3%	\$79,537	5.1%
Research, Testing, and Medical Laboratories				
Establishments	1,695	13.2%	26,702	10.2%
Employment	20,043	8.7%	483,412	3.4%
Location Quotient	0.72		n/a	
Direct-Effect Employment Multiplier	3.2		3.1	
Total Employment Impact	64,057		1,554,719	
Average Annual Wage	\$67,033	-0.1%	\$97,485	6.8%
Total Bioscience Industry				
Establishments	5,895	7.7%	77,283	5.7%
Employment	82,801	4.9%	1,655,680	2.2%
Location Quotient	0.86		n/a	
Direct-Effect Employment Multiplier	5.5		5.5	
Total Employment Impact	453,867		9,185,094	
Average Annual Wage	\$77,622	5.5%	\$94,543	7.2%
Total Private Sector				
Establishments	621,006	3.9%	8,937,672	2.7%
Employment	6,724,415	6.6%	116,018,300	4.4%
Average Annual Wage	\$44,051	3.8%	\$51,148	4.3%

Note: U.S. employment metrics include Puerto Rico.

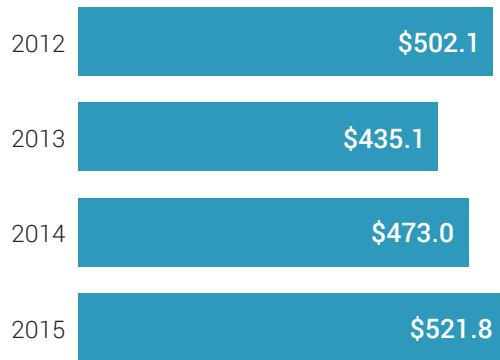


Bioscience Research in Florida

Bioscience Academic R&D Expenditures
\$ Millions
FY 2014

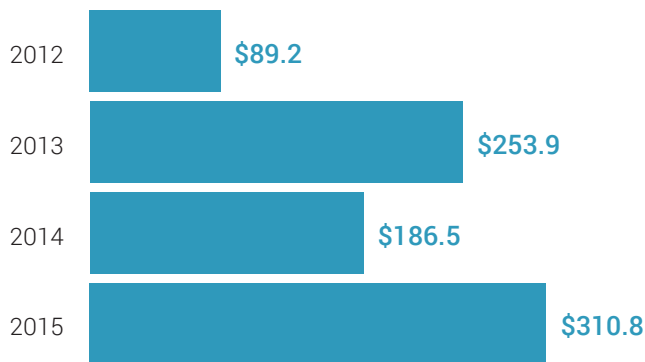


NIH Awards
\$ Millions
FY 2012-2015

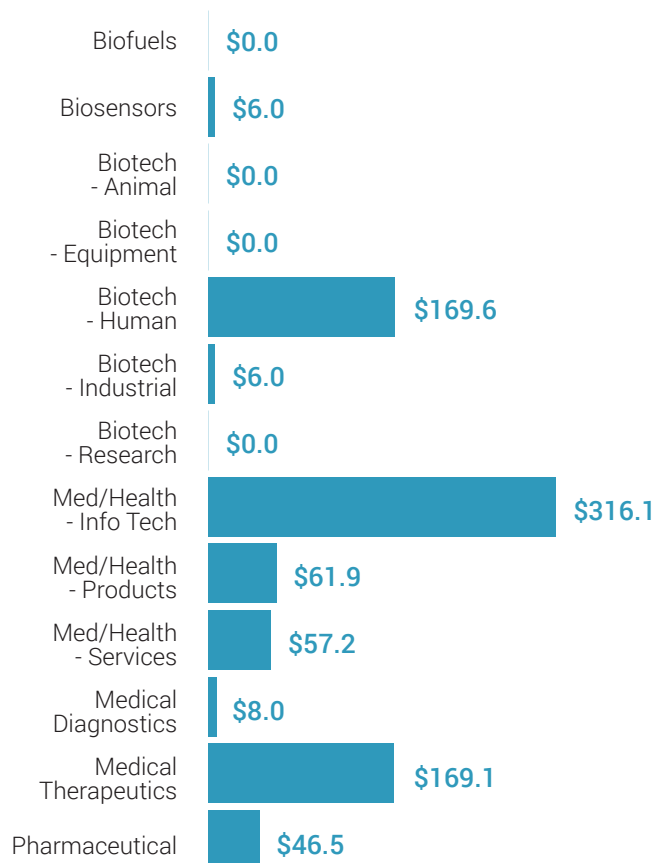


Bioscience Venture Capital in Florida

Bioscience-Related Venture
Capital Investments
\$ Millions
2012-2015



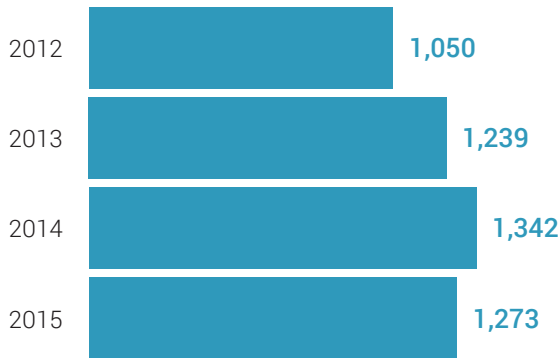
Bioscience-Related Venture
Capital Investments by Segment
\$ Millions
2012-2015



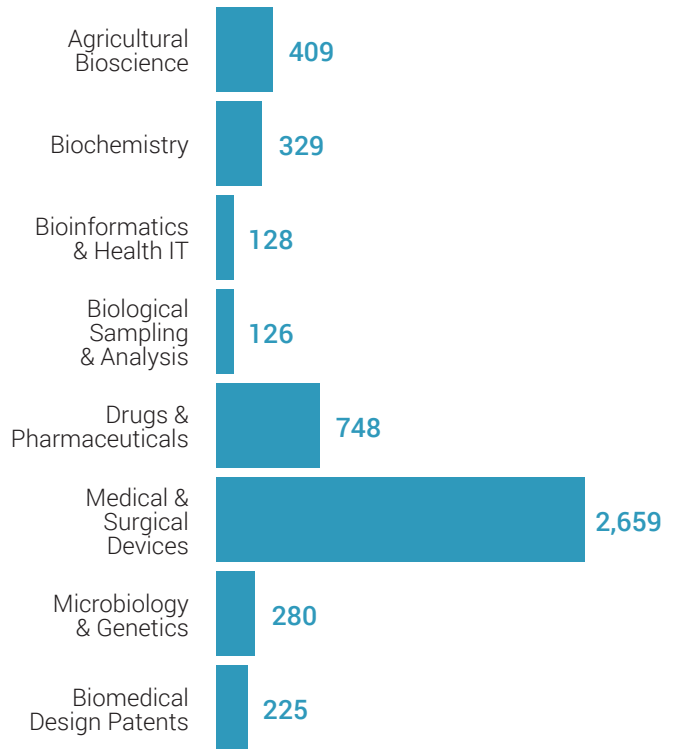


Bioscience Patents in Florida

Bioscience-Related U.S. Patents 2012-2015



Bioscience-Related U.S. Patents by Segment 2012-2015



Source Notes

Employment, Establishments, and Wages: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), enhanced file from the IMPLAN Group, LLC.

Employment Multipliers: IMPLAN Group, LLC state-level Input/Output models.

Academic R&D Expenditures: National Science Foundation (NSF) Higher Education Research and Development (HERD) Survey.

NIH Funding: National Institutes of Health, NIH Awards by Location & Organization (summary information within RePORT database).

Venture Capital: Thomson Reuters Thomson ONE venture capital database.

Patents: U.S. Patent & Trademark Office data from Thomson Reuters Thomson Innovation patent analysis database.

For a more detailed discussion of the data and methodology used, please see the Appendix to the full national report.

